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APPLICATION NUMBER 08/722,365 FILING DATE 5/5/97 ARTIFERLIRY NAMED APPLICANT R 6374 DOCKET NO.

IM31/1215

EXAMINER

HOFFMANN, J

ART UNIT 1731 PAPER NUMBER 8

12/15/98

DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

Responsive to communication(s) filed on 11-18-98

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire Three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.138(a).

Disposition of Claims

Claim(s) 1-24 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) 1, 3, 5-7, 16-20 is/are allowed.

Claim(s) \_\_\_\_\_ is/are rejected.

Claim(s) 4 is/are objected to.

Claim(s) 7, 9-15 + 21-24 are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on 11-18-98 is/are objected to by the Examiner.

The proposed drawing correction, filed on 11-18-98 is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of Reference Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

-SEE OFFICE ACTION ON THE FOLLOWING PAGES-

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## DETAILED ACTION

### *Allowable Subject Matter*

Claims 1, and 3-7 and 16-20 are allowed.

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Claim Rejections - 35 USC § 112*

Claims 8-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Examiner could find no support for the limitation newly added to claim 8.

Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "open area" of claim 8. The "total area" and "hole area" and "unit area" are already mentioned - there doesn't seem to be any area remaining that can be

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called "open area". The specification doesn't define this term or otherwise shed light on this concept.

***Claim Rejections - 35 USC § 102***

Claim 2 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Stalego 380741.

Claim 2 was amended to require end portions of different sizes. The claim is comprising in nature; it is open to portions in addition to the portions explicitly claimed. One can arbitrarily divide one end section of the Stalego screen into two equal end portions. For example (moving right to left) there is a first (left) "end portion", then a "mid or central portion" then a first right "end portion" then a second right "end portion". As to a portion of being closer to the channel, this is deemed to be a method of use limitation of which the Stalego screen/bushing could be utilized. The claims do not require any channels - only a bushing.

***Claim Rejections - 35 USC § 103***

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stalego.

Stalego doesn't teach relative proximity to a channel. It would have been obvious to use the Stalego bushing in a conventional channel-type furnace because such is a conventional furnace as admitted by Applicant. One could arbitrarily define the regions of the Stalego screen so that there are two end portions - one of which is closer to the channel than the other.

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Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marra.

Please refer to the attached enlargement of figure 2. The two hatched sections are end portions; the yellow rectangle is a central portion. It is clear that the hole density in the center portion is significantly less than the hole density in the end portions. The resistance to flow in the central section is about 50% higher than in the end portions; the central portion has nine holes(see figure 3) - whereas the end portions have a total of six holes. This means that the central portion has 9/6ths the resistance as the end portions. If this is not inherent, one could redefine the end portions so that each end portion has only one hole in it - and then choose the hole which has the least amount of resistance

Claim 24 is clearly met.

Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill

4330312.

Referring to figures 1-2 of Hill, the left most 90% of the left most part 54 one end portion. 100% of the right most part 54 is the other end portion; one end portion is 10% larger in area than the other. The middle 56 feature is the mid or central portion. As to the thickness, see col. 8, line 48-50: it would have been obvious to have the members 124 to be as thick as possible (10 one-thousandths of an inch) so as to last longer and to be stronger. All of the other limitations are easily seen. The screen is deemed a lay-in screen because one can saw/cut it off and lay it over another screen. The "significantly less" is 100%.

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***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

It is argued that

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

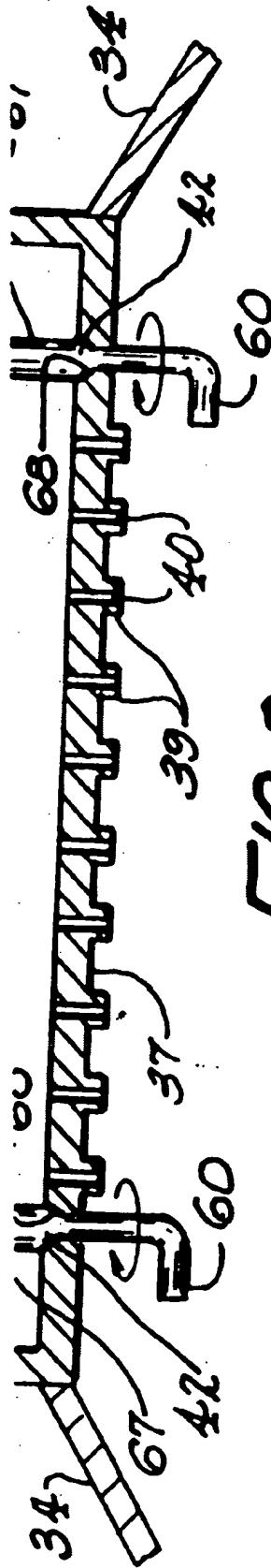


FIG. 3

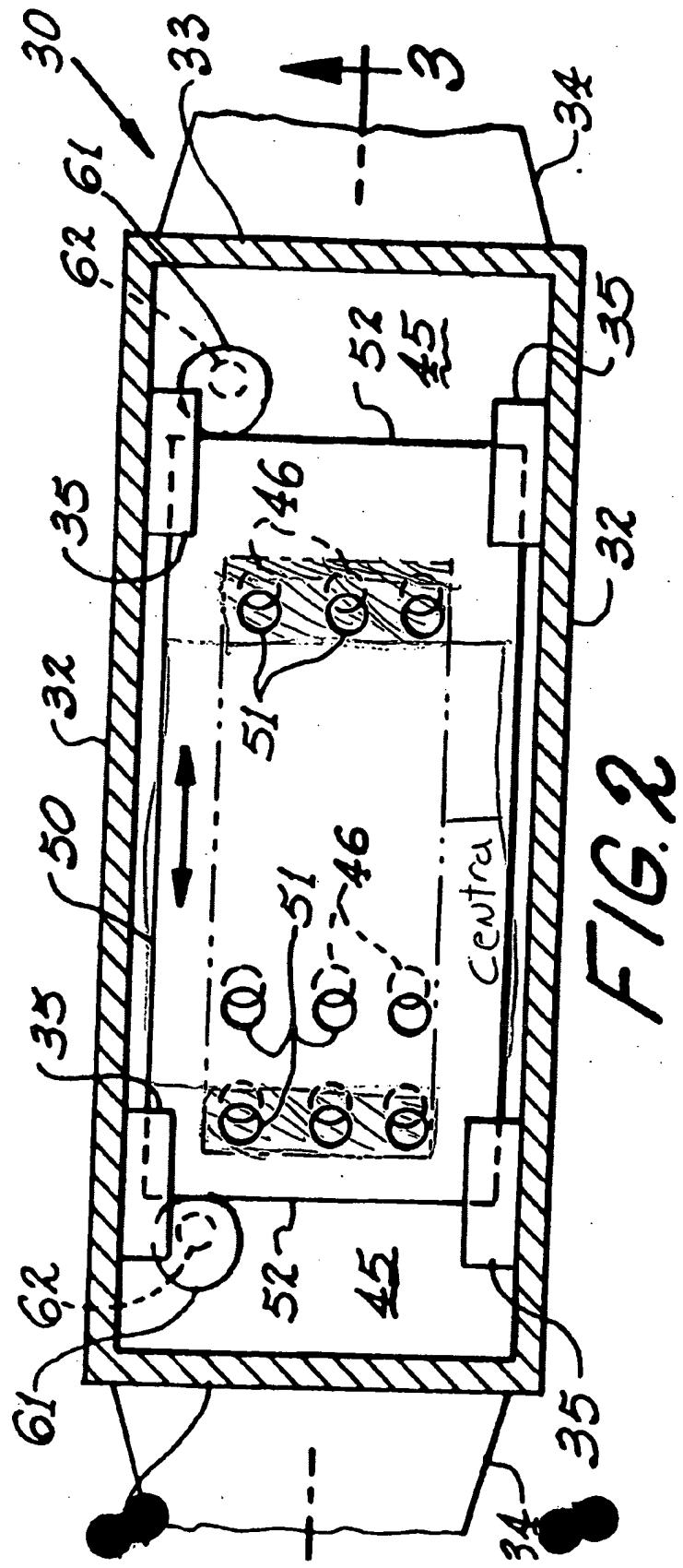


FIG. 2